

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Shell S. Simpson

Group Art Unit: 2157

Serial No.: 09/928,192

Examiner: Nano, Sargon

Filed: August 10, 2001

Docket No. 10007680-1

For: **Detecting Nearby Devices in a Network Environment**

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Sir:

This Appeal Brief under 37 C.F.R. § 41.37 is submitted in support of the Notice of Appeal filed April 23, 2007, responding to the Final Office Action mailed January 3, 2007.

It is not believed that extensions of time or fees are required to consider this Appeal Brief. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to Deposit Account No. 08-2025.

### **I. Real Party in Interest**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

### **II. Related Appeals and Interferences**

There are no known related appeals or interferences that will affect or be affected by a decision in this Appeal.

### **III. Status of Claims**

Claims 1-6 and 38-40 have been canceled leaving claims 7-37 remaining. Each of those claims stand finally rejected. No claims have been allowed. The final rejections of claims 7-37 are appealed.

### **IV. Status of Amendments**

This application was originally filed on August 10, 2001, with twenty-eight (28) claims. In a Response filed January 24, 2005, Applicant amended claims 1, 5, and added new claims 29-40. In a Response filed September 21, 2005, Applicant canceled claims 1-6 and 38-40. In a Response filed November 4, 2005, Applicant amended claims 7, 15-20, 25-29, and 36.

All of the above-identified amendments have been entered and no other amendments have been made to any of claims 7-37. The claims in the attached Claims Appendix (see below) reflect the present state of those claims.

#### **V. Summary of Claimed Subject Matter**

The claimed inventions are summarized below with reference numerals and references to the written description (“specification”) and drawings. The subject matter described in the following appears in the original disclosure at least where indicated, and may further appear in other places within the original disclosure.

Independent claim 7 describes one or more computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors, causes the one or more processors to perform acts. The acts of claim 7 include identifying one or more devices in a network. *Applicant's specification*, page 8, lines 1-3; Figure 3, item 224. The acts of claim 7 further comprise obtaining, for at least one of one or more network switches in the network, an indication of which port of the network switch a computing device is coupled to. *Applicant's specification*, page 8, lines 17-20; Figure 3, item 228. The acts of claim 7 further comprise obtaining, for each of the one or more identified devices and for the at least one network switch, an indication of which port of the network switch the identified device is coupled to. *Applicant's specification*, page 8, lines 13-16; Figure 3, item 226. The acts of claim 7 further comprise determining, for at least one of the one or more identified devices, how physically distant the identified device is to the computing device, wherein the determining is based at least in part on the indication of which port of the network switch

the computing device is coupled to and the indication of which ports of the network switch the one or more identified devices are coupled to. *Applicant's specification*, page 9, lines 3-8; Figure 3, item 230.

Independent claim 20 describes a method. The method of claim 20 comprises detecting one or more network switches in the network. *Applicant's specification*, page 7, line 23 to page 8, line 1; Figure 3, item 222. The method of claim 20 further comprises identifying one or more other devices of a particular type in the network. *Applicant's specification*, page 8, lines 1-3; Figure 3, item 224. The method of claim 20 further comprises obtaining, for each of the identified one or more other devices and for at least one of the one or more network switches, an indication of which port of the network switch the device is coupled to, wherein the indication is obtained from at least one of the one or more network switches. *Applicant's specification*, page 8, lines 13-16; Figure 3, item 226. The method of claim 20 further comprises ranking, based at least in part on the obtained indications as well as which port of the network switch the computing device is coupled to, the one or more other devices in terms of their inferred physical proximity to the computing device. *Applicant's specification*, page 9, lines 3-8; Figure 3, item 230.

Independent claim 29 describes a method. The method of claim 29 comprises discovering network switches in a network. *Applicant's specification*, page 7, line 23 to page 8, line 1; Figure 3, item 222. The method of claim 29 further comprises identifying devices connected to the network. *Applicant's specification*, page 8, lines 1-3; Figure 3, item 224. The method of claim 29 further comprises determining each switch and each port to which the devices are coupled. *Applicant's specification*, page 8, lines 13-16;

Figure 3, item 226. The method of claim 29 further comprises determining each switch and each port to which a user computer is coupled. *Applicant's specification*, page 8, lines 17-20; Figure 3, item 228. The method of claim 29 further comprises ranking the devices based upon their inferred physical proximity to the user computer. *Applicant's specification*, page 9, lines 3-8; Figure 3, item 230.

#### **VI. Grounds of Rejection to be Reviewed on Appeal**

The following grounds of rejection are to be reviewed on appeal:

1. Claims 7-29 and 31-37 have been rejected under 35 U.S.C. § 102(e) as being anticipated by *Yacoub* (U.S. Pub. No. 2003/0011805).
2. Claim 30 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yacoub* in view of *Official Notice*.

## **VII. Arguments**

The Appellant respectfully submits that Applicant's claims are neither anticipated under 35 U.S.C. § 102 nor obvious under 35 U.S.C. § 103, and respectfully requests that the Board of Patent Appeals overturn the final rejections of those claims at least for the reasons discussed below.

### **A. Claim Rejections - 35 U.S.C. § 102(e)**

Claims 7-29 and 31-37 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Yacoub (U.S. Pub. No. 2003/0011805). Applicant respectfully traverses this rejection.

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(e).

In the present case, not every feature of the claimed invention is represented in the Yacoub reference. Applicant discusses the Yacoub reference and Applicant's claims in the following.

#### **1. The Yacoub Disclosure**

Yacoub discloses a “virtual printer” that determines the most appropriate printer as determined by the physical location of the printers relative to the physical location of the user workstation sending the print job. Yacoub's virtual printer makes the physical location

determinations by consulting a coordinate map that indicates the position of the various printers in a system and the user workstation with X and Y coordinates. As described by Yacoub:

In another embodiment, the virtual printer/server will access a coordinate mapped list of the physical locations of each printer. The topmost ranked printer according to speed and quality will be indexed with the coordinate  $(X_1, Y_1)$ . The user or workstation generating the print job can also be identified by a coordinate location by accessing a similar coordinate map list for workstations, and has a coordinate  $(X_2, Y_2)$ . The distance between the topmost ranked printer and the user/workstation is determined by server/virtual printer computing the formula  $\sqrt{(X_2 - X_1)^2 + (Y_2 - Y_1)^2}$ . If the second ranked printer is determined by the virtual printer/server to be equally or closely capable with the topmost ranked printer, then the distance of the second ranked printer (coordinate  $(X_3, Y_3)$ ) is determined according to the formula  $\sqrt{(X_3 - X_2)^2 + (Y_3 - Y_2)^2}$ . This distance is compared with the distance from the user to the topmost ranked printer to determine which of the two printers is most "appropriate" printer complying with the user's speed/quality preferences and closer than other printers of similar capability.

Yacoub, paragraph 0027.

Significantly, Yacoub says *nothing* about determining locations/distances of printers in relation to which network switch port a user workstation or a printer is coupled.

## 2. Applicant's Claims

### a. Claims 7-19

Independent claim 7 provides as follows (emphasis added):

7. One or more computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors, causes the one or more processors to perform acts comprising:

identifying one or more devices in a network;

**obtaining**, for at least one of one or more network switches in the network, ***an indication of which port of the network switch a computing device is coupled to***;

**obtaining**, for each of the one or more identified devices and for the at least one network switch, ***an indication of which port of the network switch the identified device is coupled to***; and

**determining**, for at least one of the one or more identified devices, ***how physically distant the identified device is*** to the computing device, wherein the determining is ***based at least in part on the indication of which port of the network switch the computing device is coupled to and the indication of which ports of the network switch the one or more identified devices are coupled to***.

Yacoub fails to teach most of the limitations of claim 7. As a first matter, Yacoub clearly does not teach “obtaining . . . an indication of which port of the network switch a computing device is coupled to” (emphasis added). Paragraph 0020 of the Yacoub reference, which was relied upon by the Examiner during prosecution, says nothing about identifying a “port” of a “network switch” to which a computing device is connected. Indeed, the Yacoub reference does not even contain the term “switch”!

Given that fact, it is difficult to understand how Yacoub can reasonably be said to teach obtaining an indication of “which port of the network switch” to which a computing device is coupled. Instead of teaching such an action, paragraph 20 of the Yacoub reference merely explains that a virtual printer “automatically selects an appropriate printer, by querying and computing location”. Clearly, determining “location” is not determining to which network switch a computing device is connected.

Second, Yacoub clearly does not teach “obtaining . . . an indication of *which port of the network switch* the identified device is coupled to” (emphasis added). Paragraph 0020 of the Yacoub reference, which was relied upon by the Examiner, has been described above. As indicated in that description, paragraph 0020 does not even mention network switches. Regarding paragraph 0036, which was also cited by the Examiner, that paragraph similarly lacks a teaching of identifying a network switch port. Instead, that paragraph only describes a server that queries printers for information and that “keeps a mapping of the *geographical location* of the printers” (emphasis added). Applicant again notes that determining “location” is not determining to what network switch a device is connected.

Third, Yacoub certainly does not teach “determining . . . how physically distant the identified device is to the computing device . . . *based at least in part on the indication of which port of the network switch the computing device is coupled to and the indication of which ports of the network switch the one or more identified devices are coupled to*” (emphasis added). Again, the Yacoub system does not obtain any information as to what devices are connected to which network switch ports. It therefore follows that Yacoub cannot anticipate the above limitation. Furthermore,

Applicant reiterates that Yacoub determines location/distance of printers *based upon an X-Y coordinate map and not based upon network configuration*. Moreover, nothing in the Yacoub disclosure indicates or suggests that the “map” is a mapping of the network’s switches and ports. Indeed, it appears clear that the map is simply a conventional geographic map on which X and Y coordinates are defined to gauge physical distances.

From the above, it is clear that Yacoub does not anticipate Applicant’s claims because Yacoub’s invention is focused on identifying a suitable printer based upon *physical separation* determined using the Pythagorean Theorem (i.e.,  $\sqrt{(X_2 - X_1)^2 + (Y_2 - Y_1)^2}$ ) whereas Applicant’s claimed invention identifies a suitable printer based upon *network configuration*. Specifically, in Applicant’s claimed invention, proximity is inferred from the network layout. It is clear that Yacoub anticipates no such process.

Due to the shortcomings of the Yacoub reference described in the foregoing, Applicant respectfully asserts that Yacoub does not anticipate claim 7 or the claims that depend therefrom. Therefore, Applicant respectfully requests that the rejection of these claims be withdrawn.

In the Response to Arguments section of the final Office Action, the Examiner stated:

In the remarks applicant argue [sic] in substance that Yacoub does not disclose or suggest determination of location/distance of printers on a network. In response to that, Yacoub discloses directing of print jobs in a network printing system where user/client requests a print job using a

command on a GUI menu. When the request is input, a server is queried to locate the physical locations of each printer on the network using the coordinate (x,y) system. Once the locations of these printers are determined the server determines the most appropriate printer that is closest to the client/user (see paragraph 0027).

*Final Office Action*, pages 13-14. In reply, Applicant notes that Applicant did not argue that “Yacoub does not disclose or suggest determination of location/distance of printers on a network.” To the contrary, Applicant explicitly acknowledged that fact. What the Examiner fails to appreciate is that Applicant is not claiming determining the distance of printers relative to a workstation. Instead, Applicant explicitly claims a method in which the distances of network devices from a computer are *inferred from the switches and/or ports to which those network devices are coupled*. Again, Yacoub teaches nothing of the sort. Instead, as acknowledged by the Examiner, Yacoub directly determines distance from X and Y coordinates.

Regarding dependent claims 9 and 10, Yacoub does not teach “obtaining the indication from the network switch”. Again, Yacoub is silent as to network switches.

Regarding dependent claims 11 and 12, Yacoub does not teach “generating, for at least one of the one or more identified devices, a ranking indicating a proximity of the identified device to the computing device relative to the other identified devices”. Specifically, paragraph 0036 of the Yacoub reference, which was relied upon by the Examiner, says nothing of ranking devices.

Regarding dependent claims 15-18, Yacoub does not teach “checking whether the identified device shares the same port on the switch as the computing device and with a smallest number of other devices also sharing the same port” or “determining, if

the identified device shares the same port on the switch as the computing device and with the smallest number of other devices also sharing the same port, that the identified device is one of the physically closest devices to the computing device". Again, Yacoub says nothing of network switches.

**b. Claims 20-28**

Independent claim 20 provides as follows (emphasis added):

20. A method, implemented in a computing device that is part of a network, the method comprising:

detecting one or more network switches in the network;

identifying one or more other devices of a particular type in the network;

***obtaining***, for each of the identified one or more other devices and for at least one of the one or more network switches, ***an indication of which port of the network switch the device is coupled to***, wherein the indication is obtained from at least one of the one or more network switches; and

***ranking, based at least in part on the obtained indications as well as which port of the network switch the computing device is coupled to, the one or more other devices in terms of their inferred physical proximity to the computing device.***

Regarding independent claim 20, Yacoub does not teach "obtaining . . . an indication of which port of the network switch the device is coupled to, wherein the indication is obtained from at least one of the one or more network switches" or "ranking, based at least in part on the obtained indications as well as which port of the

network switch the computing device is coupled to, the one or more other devices in terms of their inferred physical proximity to the computing device" for reasons described above. Claims 20-28 are allowable over Yacoub for at least that reason.

With particular regard to dependent claim 23, Yacoub does not teach "identifying the one or more other devices in the network by querying a plurality of devices on the network to determine, for each of the plurality of devices, whether the device is of the particular type". Applicant notes that paragraph 0026 of the Yacoub reference, which was relied upon by the Examiner, only teaches a server querying a database to learn about printers and then querying the printer as to their availability, not their type.

Regarding dependent claim 24, Yacoub does not teach "presenting . . . the ranking" of devices. Although paragraph 0026 of the Yacoub reference, which was relied upon by the Examiner, discusses identifying the "top most ranked" printer, Yacoub does not describe presenting a ranking of devices to a user.

Regarding dependent claims 25-28, Yacoub does not teach "checking whether the device shares the same port on a network switch as the computing device and with a smallest number of additional devices also sharing the same port" or "determining, if the device shares the same port on the network switch as the computing device and with the smallest number of additional devices also sharing the same port, that the device is one of the physically closest devices to the computing device". Again, Yacoub says nothing of network switches.

c.      **Claims 29-37**

Independent claim 29 provides as follows (emphasis added):

29.    A method, comprising:

***discovering network switches in a network;***

identifying devices connected to the network;

***determining each switch and each port to which the devices are coupled;***

***determining each switch and each port to which a user computer is coupled;*** and

***ranking the devices based upon their inferred physical proximity to the user computer.***

Regarding independent claim 29, Yacoub does not teach “determining each switch and each port to which the devices are coupled”, “determining each switch and each port to which a user computer is coupled”, or “ranking the devices based upon their inferred physical proximity to the user computer” for reasons described above.

Furthermore, Yacoub does not teach “discovering network switches in a network”. Regarding paragraph 0042 of the Yacoub reference, which is relied upon by the Examiner, Yacoub does not even mention a “switch”.

Claims 29-37 are allowable over Yacoub for at least those reasons.

With particular regard to dependent claim 33, Yacoub does not teach “wherein identifying devices comprises querying multiple addresses on the network”. Again, paragraph 0026 of the Yacoub reference, which was relied upon by the Examiner, only teaches querying printers as to their availability.

Regarding dependent claim 34, Yacoub does not teach “obtaining switch and port information from at least one network switch”. Again, Yacoub says nothing about network switches.

Regarding dependent claim 35, Yacoub does not teach “obtaining switch and port information from at least one network switch”. Again, Yacoub says nothing about network switches.

Regarding dependent claim 37, Yacoub does not teach “presenting the rankings to the user”. Although paragraph 0026 of the Yacoub reference, which was relied upon by the Examiner, discusses identifying the “top most ranked” printer, Yacoub does not describe presenting a ranking of devices to a user.

**B. Claim Rejections - 35 U.S.C. § 103(a)**

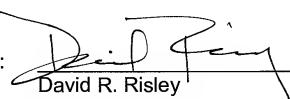
Claim 30 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yacoub* in view of *Office Notice*. Applicant respectfully traverses this rejection.

As is identified above, Yacoub does not teach several aspects of Applicant's claims. In that the Examiner's application of Official Notice does not remedy the deficiencies of the Yacoub reference, Applicant respectfully submits that claim 30 is allowable for at least the same reasons that claim 29 is allowable over Yacoub.

### **VIII. Conclusion**

In summary, it is Applicant's position that Applicant's claims are patentable over the applied prior art references and that the rejection of these claims should be withdrawn. Appellant therefore respectfully requests that the Board of Appeals overturn the Examiner's rejection and allow Applicant's pending claims.

Respectfully submitted,

By:   
David R. Risley  
Registration No. 39,345

**Claims Appendix under 37 C.F.R. § 41.37(c)(1)(viii)**

The following are the claims that are involved in this Appeal.

7. (Previously presented) One or more computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors, causes the one or more processors to perform acts comprising:

identifying one or more devices in a network;

obtaining, for at least one of one or more network switches in the network, an indication of which port of the network switch a computing device is coupled to;

obtaining, for each of the one or more identified devices and for the at least one network switch, an indication of which port of the network switch the identified device is coupled to; and

determining, for at least one of the one or more identified devices, how physically distant the identified device is to the computing device, wherein the determining is based at least in part on the indication of which port of the network switch the computing device is coupled to and the indication of which ports of the network switch the one or more identified devices are coupled to.

8. (Original) One or more computer readable media as recited in claim 7, wherein at least one of the identified one or more devices comprises a printer.

9. (Original) One or more computer readable media as recited in claim 7, wherein obtaining an indication of which port of the network switch a computing device is coupled to comprises obtaining the indication from the network switch.

10. (Original) One or more computer readable media as recited in claim 7, wherein obtaining an indication of which port of the network switch the identified device is coupled to comprises obtaining the indication from the network switch.

11. (Original) One or more computer readable media as recited in claim 7, wherein the determining comprises generating, for at least one of the one or more identified devices, a ranking indicating a proximity of the identified device to the computing device relative to the other identified devices.

12. (Original) One or more computer readable media as recited in claim 11, wherein the plurality of instructions further cause to one or more processors to perform an additional act comprising:

presenting, to a user, each of the generated rankings.

13. (Original) One or more computer readable media as recited in claim 7, wherein the computing device comprises both the computer readable media and the one or more processors.

14. (Original) One or more computer readable media as recited in claim 7, wherein the computing device comprises both the one or more processors and an I/O device to read the one or more computer readable media.

15. (Previously presented) One or more computer readable media as recited in claim 7, wherein determining how physically distant the identified device is to the computing device comprises:

    checking whether the identified device shares the same port on the switch as the computing device and with a smallest number of other devices also sharing the same port; and

    determining, if the identified device shares the same port on the switch as the computing device and with the smallest number of other devices also sharing the same port, that the identified device is one of the physically closest devices to the computing device.

16. (Previously presented) One or more computer readable media as recited in claim 15, wherein determining how physically distant the identified device is to the computing device further comprises:

    checking whether the identified device shares the same port on the switch as the computing device and with a smaller number of other devices also sharing the same port; and

    determining, if the identified device shares the same port on the switch as the computing device and with the smaller number of other devices also sharing the same port, that the identified device is a second physically closest device to the computing device.

17. (Previously presented) One or more computer readable media as recited in claim 16, wherein determining how physically distant the identified device is to the computing device further comprises:

    checking whether the identified device shares the same port on the switch as the computing device without regard for a number of other devices also sharing the same port; and

    determining, if the identified device shares the same port on the switch as the computing device without regard for the number of other devices also sharing the same port, that the identified device is a third physically closest device to the computing device.

18. (Previously presented) One or more computer readable media as recited in claim 17, wherein determining how physically distant the identified device is to the computing device further comprises:

    checking whether the identified device shares the switch with any number of other devices also sharing the switch;

    determining, if the identified device shares the switch with any number of other devices also sharing the switch, that the identified device is a fourth physically closest device to the computing device; and

    determining, if the identified device does not share the switch with any number of other devices also sharing the switch, that the identified device is a fifth physically closest device to the computing device.

19. (Previously presented) One or more computer readable media as recited in claim 7, wherein determining how physically distant the identified device is to the computing device comprises:

if the identified device shares the same port on the switch as the computing device and with a smallest number of other devices also sharing the same port, then determining the identified device is one of the physically closest devices to the computing device;

otherwise, if the identified device shares the same port on the switch as the computing device and with a smaller number of other devices also sharing the same port, then determining the identified device is a second physically closest device to the computing device;

otherwise, if the identified device shares the same port on the switch as the computing device and without regard for a number of other devices also sharing the same port, then determining the identified device is a third physically closest device to the computing device; and

otherwise, if the identified device shares the switch with any number of other devices also sharing the switch, then determining the identified device is a fourth physically closest device to the computing device, and otherwise determining the identified device is a fifth physically closest device to the computing device.

20. (Previously presented) A method, implemented in a computing device that is part of a network, the method comprising:

detecting one or more network switches in the network;  
identifying one or more other devices of a particular type in the network;  
obtaining, for each of the identified one or more other devices and for at least one of the one or more network switches, an indication of which port of the network switch the device is coupled to, wherein the indication is obtained from at least one of the one or more network switches; and  
ranking, based at least in part on the obtained indications as well as which port of the network switch the computing device is coupled to, the one or more other devices in terms of their inferred physical proximity to the computing device.

21. (Original) A method as recited in claim 20, wherein the one or more other devices of a particular type comprises one or more printers.

22. (Original) A method as recited in claim 20, wherein identifying one or more other devices of a particular type in the network comprises identifying the one or more other devices in the network by accessing a list of device identifiers.

23. (Original) A method as recited in claim 20, wherein identifying one or more other devices of a particular type in the network comprises identifying the one or more other devices in the network by querying a plurality of devices on the network to determine, for each of the plurality of devices, whether the device is of the particular type.

24. (Original) A method as recited in claim 20, further comprising presenting, to a user, the ranking of at least one of the one or more other devices.

25. (Previously presented) A method as recited in claim 20, wherein ranking a device of the one or more other devices comprises:

    checking whether the device shares the same port on a network switch as the computing device and with a smallest number of additional devices also sharing the same port; and

    determining, if the device shares the same port on the network switch as the computing device and with the smallest number of additional devices also sharing the same port, that the device is one of the physically closest devices to the computing device.

26. (Previously presented) A method as recited in claim 25, wherein ranking the device of the one or more other devices further comprises:

    checking whether the device shares the same port on the network switch as the computing device and with a smaller number of the additional devices also sharing the same port;

    determining, if the device shares the same port on the switch as the computing device and with the smaller number of the additional devices also sharing the same port, that the device is a second physically closest device to the computing device.

27. (Previously presented) A method as recited in claim 26, wherein ranking the device of the one or more other devices further comprises:

    checking whether the device shares the same port on the switch as the computing device without regard for a number of additional devices also sharing the same port;

    determining, if the device shares the same port on the switch as the computing device without regard for the number of additional devices also sharing the same port, that the device is a third physically closest device to the computing device.

28. (Previously presented) A method as recited in claim 27, wherein ranking the device of the one or more other devices further comprises:

    checking whether the device shares the switch with any number of additional devices also sharing the switch;

    determining, if the device shares the switch with any number of additional devices also sharing the switch, that the device is a fourth physically closest device to the computing device; and

    determining, if the device does not share the switch with any number of additional devices also sharing the switch, that the device is a fifth physically closest device to the computing device.

29. (Previously presented) A method, comprising:

    discovering network switches in a network;

    identifying devices connected to the network;

    determining each switch and each port to which the devices are coupled;

    determining each switch and each port to which a user computer is coupled; and

    ranking the devices based upon their inferred physical proximity to the user computer.

30. (Previously presented) The method of claim 29, wherein discovering network switches comprises discovering the network switches using simply network management protocol (SNMP).

31. (Previously presented) The method of claim 29, wherein identifying devices comprises identifying printers.

32. (Previously presented) The method of claim 29, wherein identifying devices comprises consulting a list of network device identifiers.

33. (Previously presented) The method of claim 29, wherein identifying devices comprises querying multiple addresses on the network.

34. (Previously presented) The method of claim 29, wherein determining each switch and each port to which the devices and the user computer are coupled comprises obtaining switch and port information from at least one network switch.

35. (Previously presented) The method of claim 34, wherein obtaining switch and port information comprises obtaining the switch and port information from a connection table of the at least one network switch.

36. (Previously presented) The method of claim 29, further comprising automatically selecting the physically closest device.

37. (Previously presented) The method of claim 29, further comprising presenting the rankings to the user.

**Evidence Appendix under 37 C.F.R. § 41.37(c)(1)(ix)**

There is no extrinsic evidence to be considered in this Appeal. Therefore, no evidence is presented in this Appendix.

**Related Proceedings Appendix under 37 C.F.R. § 41.37(c)(1)(x)**

There are no related proceedings to be considered in this Appeal. Therefore, no such proceedings are identified in this Appendix.